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Re-evaluation Decision RVD2017-09

Re-evaluation Decision for Antisapstain and Joinery Uses of Didecyl Dimethyl Ammonium Chloride (DDAC)

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Re-evaluation Decision

Under the *Pest Control Products Act*, all registered pesticides must be regularly re-evaluated by Health Canada's Pest Management Regulatory Agency (PMRA) to ensure that they continue to meet current health and environmental safety standards and continue to have value. The re-evaluation considers data and information from pesticide manufacturers, published scientific reports and other regulatory agencies. The PMRA applies internationally accepted risk assessment methods as well as current risk management approaches and policies.

Didecyl dimethyl ammonium chloride (DDAC) is an antimicrobial active ingredient registered as a joinery wood preservative and as a sapstain control chemical. Antisapstain products are used to prevent the growth of staining fungi in freshly cut lumber. They are applied to freshly-cut wood by dipping or spraying to achieve short-term (months) protection against staining fungi. Joinery wood preservatives provide long-term decay protection to wood that has been machined or milled, such as window frames or doors. Joinery products may be applied by dipping, spraying, double vacuum treatment or flow/flood coating.

This document presents the re-evaluation decision[1] for the antisapstain and joinery uses of DDAC. All antisapstain and joinery products containing DDAC that are registered in Canada are subject to this re-evaluation decision. This re-evaluation decision has gone through a 90-day consultation period as Proposed Re-evaluation Decision PRVD2016-24, *Antisapstain and Joinery Uses of Didecyl Dimethyl Ammonium Chloride (DDAC)*, which ended on 30 March 2017. The PMRA received two general comments relating to the antisapstain and joinery product label requirements. These comments are summarised in Appendix I along with the responses by the PMRA. This decision is consistent with the proposed re-evaluation decision stated in PRVD2016-24 which lists all data used as the basis for the re-evaluation decision.

Regulatory Decision for the Antisapstain and Joinery Uses of Didecyl Dimethyl Ammonium Chloride (DDAC)

The PMRA has completed the re-evaluation for the antisapstain and joinery uses of DDAC. Under the authority of the *Pest Control Products Act*, the PMRA is granting continued registration of the antisapstain and joinery uses of DDAC in Canada. An evaluation of available scientific information found that the antisapstain and joinery uses of DDAC products do not present unacceptable risks to human health or the environment when used according to the conditions of registration, including amended label directions. Label amendments are required for all antisapstain and joinery end-use products as summarized below and listed in Appendix II. No additional data are requested at this time.

Risk Mitigation Measures

Registered pesticide product labels include specific direction for use. Directions include risk mitigation measures to protect human health and the environment and must be followed by law.

[1] "Decision statement" as required by subsection 28(5) of the *Pest Control Products Act*.

Human Health

- Additional general hygiene and personal protective equipment to protect workers.

Environment

- To minimize the amount of DDAC entering aquatic environments, wood treatment facilities using DDAC antisapstain products are to be equipped with drip pads (where wood is allowed to sit for a short drying period immediately after treatment) that are roofed and paved.

- Precautionary label statements are required to identify environmental hazards and prevent run-off from treatment facilities to waterbodies.

Next Steps

To comply with this decision, the required mitigation measures must be implemented on all products labels sold by registrants no later than 24 months after the publication date of this decision document. Appendix III lists the antisapstain and joinery products containing DDAC that are registered under the authority of the *Pest Control Products Act*.

Other Information

Any person may file a notice of objection[2] regarding this decision on the antisapstain and joinery uses of DDAC within 60 days from the date of publication of this Re-evaluation Decision. For more information regarding the basis for objecting (which must be based on scientific grounds), please refer to the Pesticides and Pest Management portion of the Canada.ca website (Request a Reconsideration of Decision) or contact the PMRA's Pest Management Information Service.

[2] As per subsection 35(1) of the *Pest Control Products Act*

Appendix I Comments and Responses

In response to the consultations for the antisapstain and joinery proposed re-evaluation decisions, comments pertaining to the required label statements were received.

1. **Comments regarding the PPE required for specific job tasks.** The registrant would like more specific language to avoid confusion as to whom in the sawmills the PPE requirements are directed towards.

PMRA Response

The PMRA has made changes to the required label statements to clarify when certain personal protective equipment are required.

In addition, as mentioned in the PRVD, the Exposure Reduction Program (ERP) includes more detailed information on the personal protective equipment (PPE) and mitigation measures required to reduce antisapstain and joinery chemical exposure. Based on the information from the ERP, the proper use of the required PPE for certain workers is defined as follows:

When handling the concentrate or during mixing loading, clean-up, maintenance and repair includes activities where the person is contacting the chemical application equipment whether the purpose is for cleaning, maintenance or repair. The same PPE is required for any activities involving antisapstain/joinery products, such as transporting, sampling or cleaning spills.

"Use of a respirator" is intended for workers involved in clean-up, maintenance or repair activities of treating equipment or clean-up of antisapstain/joinery product. "Areas lacking adequate ventilation as best determined by an industrial hygienist" also require use of a respirator. Additional clarification has been added to the label.

"When piling freshly treated lumber or handling treated wood that has not fully dried" requires the use of chemical-resistant coveralls or a chemical-resistant apron and chemical-resistant gloves and footwear to prevent transfer of the liquid to the skin.

The statement "If there is potential for getting wet by the treating solution" relates to tasks in the sawmill where exposure to the product may occur but are not captured under clean-up, maintenance and repair work. The minimum PPE in these cases is also chemical-resistant coveralls or chemical-resistant apron over long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear. Additional clarification has been added to the label.

"When working in the dip or spray area" relates to tasks in the treatment area where antisapstain contamination may be present but the work is not likely to result in direct exposure to the treating solution.

"Wear eye protection if there is a possibility of splashing" may include areas or situations such as the treating area, antisapstain filling station or from handling treated wood with excess treating solution pooled on the surface.

The statement "once dry, treated wood can be handled with cotton or leather gloves" is meant for handling treated wood that will not leach excess treating solution to the gloves or clothing.

The Product Stewardship for the Exposure Reduction Program for sawmills using antisapstain (or joinery) products are important tools for worker training/education purposes and thus, should be reviewed by antisapstain and joinery product manufacturers/registrants in collaboration with the sawmill industry on a regular basis (minimally on an annual basis).

Comment concerning options for disposal statements required on product labels. It was suggested to give the registrants the choice of disposal language for containers that are "Refillable" and "Returnable" as defined in DIR99-04. Registrants require the option to select and propose the appropriate label statement for their product/container with the understanding that several product labels with different disposal statements may be required if more than one container type is marketed for a given registration number.

PMRA Response

The PMRA agrees with this comment and the label language has been updated accordingly.

Appendix II Label Amendments for Antisapstain and Joinery Products containing DDAC

The label amendments presented below do not include all label requirements for individual end-use products, such as first aid statements, disposal statements, precautionary statements and supplementary protective equipment. Information on labels of currently registered products should not be removed unless it contradicts the label statements provided below.

Statements To Protect Human Health

To protect workers, additional personal protective equipment is required on all DDAC antisapstain and joinery product labels. In order to conform to the Antisapstain Exposure Reduction Program, the following statements are to be included on the appropriate product labels in a section entitled **PRECAUTIONS**:

Antisapstain Product Labels:

- Wear chemical-resistant coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, goggles or face shield, socks, and chemical-resistant footwear when handling the concentrate or during mixing/loading, clean-up, maintenance and repair activities.
- Use a NIOSH-respirator if the area is not well ventilated or if airborne exposure levels are above the occupational exposure limit(s), as determined by air sampling.
- Use a NIOSH-respirator during clean-up, maintenance and repair activities when working in/on application equipment or if airborne material (e.g. dust, mist/spray) may be generated when working in the treatment area.
- When piling freshly treated lumber, handling treated lumber that has not fully dried, or if there is a potential for getting wet by the treating solution during other activities in the sawmill, wear chemical-resistant coveralls or a chemical-resistant apron over long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear.
- When working in the dip or spray area, wear long-sleeved shirt, long pants, chemical-resistant gloves, socks and boots. Wear goggles or face shield if there is a possibility of splashing.
- Once dry, the treated wood can be handled with cotton or leather gloves.
- Wash hands and face before eating, drinking, smoking and using the toilet. Change clothes daily. Wash contaminated clothing separately from household laundry. Not for use or storage in or around the home. Clean contaminated equipment thoroughly prior to making welding repairs.

Joinery Product Labels:

- Wear chemical-resistant coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, goggles or face shield, socks, and chemical-resistant footwear when handling the concentrate or during mixing/loading, clean-up, maintenance and repair activities.

- Use a NIOSH-respirator if the area is not well ventilated or if airborne exposure levels are above the occupational exposure limit(s), as determined by air sampling.
- Use a NIOSH-respirator during clean-up, maintenance and repair activities when working in/on application equipment or if airborne material (e.g. dust, mist/spray) may be generated when working in the treatment area.
- Use a NIOSH-respirator when opening pressure treatment cylinder doors.
- When handling freshly treated wood, handling treated wood that has not fully dried, or if there is a potential for getting wet by the treating solution during other activities, wear chemical-resistant coveralls or a chemical-resistant apron over long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear.
- When working in the application area, wear long-sleeved shirt, long pants, chemical-resistant gloves, socks and boots. Wear goggles or face shield if there is a possibility of splashing.
- Once dry, the treated wood can be handled with cotton or leather gloves.
- Wash hands and face before eating, drinking, smoking and using the toilet. Change clothes daily. Wash contaminated clothing separately from household laundry. Not for use or storage in or around the home. Clean contaminated equipment thoroughly prior to making welding repairs.

Statements To Protect The Environment

A. Label statements for technical grade active ingredients:

I) **ENVIRONMENTAL PRECAUTIONS**:

TOXIC to aquatic organisms.

DO NOT discharge effluent containing this product into sewer systems, lakes, streams, ponds, estuaries, oceans or other waters.

II) **DISPOSAL**:

Canadian manufacturers should dispose of unwanted active ingredients and containers in accordance with municipal or provincial regulations. For additional details and clean-up of spills, contact the manufacturer or the provincial regulatory agency.

B. Label statements for End Use Products:

I) **ENVIRONMENTAL PRECAUTIONS**:

TOXIC to aquatic organisms.

II) **DIRECTION FOR USE**:

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

This product is TOXIC to aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. The requirements of applicable laws should be determined before using the product.

Dip tanks and drip aprons must be roofed, paved and drained to prevent dilution and loss of treatment solution.

Store treated lumber on a roofed drip pad until dripping has ceased. Slope lumber on the drip pad to expedite drainage and to ensure that no puddles remain on the surface of the wood. Manage drippage and other related wastes to prevent release in the environment.

DO NOT expose treated lumber to rains immediately after treatment.

For further information on storage, handling, and disposal of treated wood, contact the manufacturer of this product or the provincial regulatory agency.

III) **STORAGE**:

To prevent contamination store this product away from food or feed.

IV) **DISPOSAL**:

For recyclable containers:

DO NOT reuse this container for any other purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Dispose of the rinsings in accordance with provincial requirements.

2. Make the empty, rinsed container unsuitable for further use.

   If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

   For information on disposal of unused, unwanted product, or in the case of a spill or spill clean-up, contact the manufacturer or the provincial regulatory agency.

For returnable containers:

DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

For containers that can be refilled for the user by the distributor/dealer:

> This container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

Appendix III Currently Registered Antisapstain and Joinery Products Containing DDAC (as of 31 August 2017)

Table 1 Antisapstain Products Containing DDAC

Registration Number	Marketing Type	Registrant Name	Product Name	Formulation type	Guarantee
20321	Technical	Lonza, Inc.	Bardac 2280 Quat	Solution	80%
24805	Technical	Mason Chemical Company	Maquat 4480-E	Solution	80%
24812	Manufacturing Concentrate	Mason Chemical Company	Maquat 4450-E	Solution	50%
21893	Manufacturing Concentrate	Lonza, Inc.	Bardac 2250	Solution	50%
21753 (with IPB)	Commercial	Kop-Coat Inc.	NP-1 Sapstain Control Chemical	Emulsifiable Concentrate or Emulsion	Iodocarb: 7.60%; DDAC: 64.56%
26985 (with IPB)	Commercial	Kop-Coat Inc.	NP-2 Sapstain Control Chemical	Solution	Iodocarb: 4.76%; DDAC: 70.48%
21939	Commercial	Arch Wood Protection Canada Corp.	F2 Concentrate T2154 Liquid Microbiocide	Emulsifiable Concentrate or Emulsion	DDAC : 11.41% Disodium octaborate tetrahydrate :16.8%
27632	Commercial	Arch Wood Protection Canada Corp.	Antiblu F2 Concentrate T2154 Liquid Microbiocide	Solution	DDAC : 11.41% Disodium octaborate tetrahydrate : 3.1%
26250	Commercial	Mason Chemical Company	Maquat SSC	Solution	50%
29407	Commercial	Diacon Technologies Ltd.	Mycostat PQ Wood Preservative Treatment	Solution	DDAC: 45.5%; Propiconazole: 4.4%
25744	Commercial	Diacon Technologies Ltd.	Mycostat-Q	Solution	50%

Table 2 Joinery Products Containing DDAC

Registration Number	Marketing Type	Registrant Name	Product Name	Formulation type	Guarantee
24805	Technical	Mason Chemical Company	Maquat 4480-E	Solution	80%
21939	Commercial	Arch Wood Protection Canada Corp.	F2 Concentrate T2154 Liquid Microbiocide	Emulsifiable Concentrate or Emulsion	DDAC : 11.41% Disodium octaborate tetrahydrate :16.8%
27632	Commercial	Arch Wood Protection Canada Corp.	Antiblu F2 Concentrate T2154 Liquid Microbiocide	Solution	DDAC : 11.41% Disodium octaborate tetrahydrate : 3.1%